

In the Claims:

Please cancel Claims 1 to 12 without prejudice, and add new claims as follows:

1 to 12 (canceled).

13. (new) A method for producing a silica glass jig for manufacture or treatment of semiconductor products, said method comprising:

treating a surface of the silica glass jig with a first treatment so that the resulting surface comprises projected structures defining spaces therebetween; and

treating the resulting surface with a second treatment such that the jig surface has projections smaller than the projected structures uniformly distributed over said projected structures.

14. (new) The method according to claim 13, wherein the projections have bottom portions with a maximum width of the of from 1 to 50 μm and heights from the bottom portions to top portions thereof from 0.1 to 10 μm .

15. (new) The method according to claim 14, wherein the projected structures are pyramidal and have cut-off apices.

16. (new) The method according to Claim 15, wherein the pyramidal projected structures have bottom portions with a maximum width of from 70 to 1000 μm and heights from the bottom portions to top portions thereof of from 10 to 100 μm .

17. (new) The method according to Claim 14, wherein the first treatment comprises machining of the surface of the jig.

18. (new) The method according to Claim 17, wherein the projected structures are dimpled and each has a width of from 20 to 300 μm , and the projected structures are separated by grooves each having a width of from 0.5 to 50 μm at intervals of from 20 to 300 μm .

19. (new) The method according to Claim 14, wherein the first treatment comprises treating the surface of the jig with a first processing solution that removes portions of the surface so as to form the projected structures.

20. (new) The method according to claim 19, wherein the first processing solution contains hydrogen fluoride and ammonium fluoride.

21. (new) The method according to Claim 19, wherein the first treatment comprises treating the surface of the jig with a treating solution that removes portions of the surface so as to form the projected structures.

22. (new) The method according to claim 13, wherein the second treatment comprises exposing the surface to a treating solution that removes portions of said surface so as to produce said projections.

23. (new) The method according to claim 22, wherein the treating solution comprises an organic carboxylic acid.

24. (new) The method according to claim 23, wherein the treating solution contains the organic carboxylic acid in an amount of 40 to 75% by mass.

25. (new) The method according to claim 23, wherein the treating solution contains the organic carboxylic acid in an amount of 45 to 75% by mass.

26. (new) The method according to claim 24, wherein the organic carboxylic acid is acetic acid.

27. (new) The method according to claim 25, wherein the organic carboxylic acid is acetic acid.

28. (new) The method according to claim 13, wherein after the second treatment the surface of the silica glass jig has an average roughness Ra in a range of from 1 to 10 μm .

29. (new) A method for producing a silica glass jig for manufacture or treatment of semiconductor products, said method comprising:

subjecting the silica glass jig to a first treatment that produces on said jig a surface having projected structures and concave portions between said projected structures; and

treating the resulting surface with a treating solution containing hydrogen fluoride and ammonium fluoride.

30. (new) A method according to Claim 29, wherein the treating solution further contains an organic carboxylic acid.

31. (new) A method according to Claim 30, wherein the organic carboxylic acid is acetic acid.

32. (new) A method according to Claim 31, wherein the treating solution contains from 45 to 70% by mass of the organic carboxylic acid.

33. (new) A method according to Claim 29, wherein the first treatment comprises machining the jig with a sandblasting treatment.

34. (new) A method according to Claim 33, wherein the treating solution contains from 10 to 30 % by mass of hydrogen fluoride, from 5 to 30 % by mass of ammonium fluoride, from 45 to 70 % by mass of an organic carboxylic acid, the remainder of the solution being water.

35. (new) A method according to Claim 29, wherein the treating solution contains from 10 to 30 % by mass of hydrogen fluoride, from 5 to 30 % by mass of ammonium fluoride, from 45 to 70 % by mass of an organic carboxylic acid, the remainder of the solution being water.

36. (new) A method according to Claim 34, wherein the organic carboxylic acid is acetic acid.

37. (new) A method according to Claim 35, wherein the organic carboxylic acid is acetic acid.

38. (new) A method for producing a silica glass jig for manufacture or treatment of semiconductor products, said method comprising:

immersing the silica glass jig in a first processing solution containing hydrogen fluoride, ammonium fluoride, and an organic acid; and

immersing the silica glass jig at least once in a second processing solution having the organic acid in a concentration higher than that of the first processing solution.

39. (new) A method according to Claim 29, wherein

the first processing solution is an aqueous solution containing from 15 to 50 % by mass of hydrogen fluoride, from 6 to 30 % by mass of ammonium fluoride, and from 30 to 50 % by mass of the organic acid, and

the second processing solution is a processing solution containing from 5 to 20 % by mass of hydrogen fluoride, from 6 to 30 % by mass of ammonium fluoride, and from 40 to 70 % by mass of the organic acid.

40. (new) A method according to Claim 39, wherein the organic acid is acetic acid.